

# Self-concept and engagement of trainees attending the training courses for petty officers 1<sup>st</sup> class

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## Abstract

**Conceptual Framework:** Self-perceptions influence individuals' receptiveness to the task and the way they pursue its accomplishment. Therefore, it is of the uttermost importance to analyze the influence of trainee self-concept in their engagement toward tasks. **Objectives:** The present study aims to analyze how self-concept influences the engagement of trainees attending the Training Courses for Petty Officers 1st Class (CFS). **Methodology:** The study methodology made use of the Utrecht Work Engagement Scale (Schaufeli, Salanova, González-Romá & Bakker, 2002), the Assessment Scale for Trainee Engagement in the Portuguese Navy (Frade & Veiga, 2014; Frade, 2015), as well as the Assessment Scale for Trainee Self-concept in the Portuguese Navy (Frade & Veiga, in press; Frade, 2015). The sample was comprised of 149 trainees from the CFS of the Portuguese Navy. The data collected were analyzed using SPSS software. **Results:** The results point to the important influence of self-concept in the engagement dimensions as a way to encourage the engagement of trainees from the Portuguese Navy. Suggestions to future studies are presented.

**Keywords:** Learning engagement, self-concept, adult training, military context

## 1. Introduction

Self-perceptions have influence in the way the subject presents himself to the chores (Linnerbrink & Pintrich, 2002), and in the way he acts towards its fulfilment. Students' perception about their competences influences their performance, their persistency and their involvement in the task (Bandura, 1997; Marsh, 1990; Pintrich & Schunk, 2002; Sá, 2004; Schunk, 2004). In agreement, Bryson e Williams (2013) defend that the involvement is mediated by the students' experience regarding their objectives, aspirations, values and beliefs.

Having in consideration some self-concept's more specific aspect, namely the interpersonal relationship, several authors (Kelley, 1983; Reis, Collins, & Berscheid, 2000) defend that to understand and predict behaviour it is necessary to analyse and know the relational context in which the individuals are inserted. At work, positive interpersonal relationships, in specific, have an advantageous impact, both to an organizational and individual level, in the way that contribute to the increase of attitudes such as the organizational support perception and satisfaction, commitment and involvement towards work (Chermiss, 1991; Ellingwood, 2001; Morrisson, 2009; Song & Olshfski, 2008; Zagenczyk, Scott, Gibney, Murrell, & Thatcher, 2010).

Another aspect of the self-concept is having in consideration in the connection with the involvement is satisfaction as an attitude referent to the evaluation made by the subject regarding his work in affective and cognitive aspects (Fisher, 2000). Several authors (Harter, Schmidt, & Keyes, 2002; Paschoal & Tamayo, 2008) consider the existence of positive emotions affect in a positive way wealth at work. Analogously Siqueira and Padovam (2008) defend that working well-being integrates positive affective bonds with professional performance (satisfaction and involvement) and with the organization (affective commitment). Al-Hussami (2008) considers that satisfied workers tend to be more productive and to feel a bigger organizational involvement.

The acceptance of challenges, which implies trust in self-competence, also relates positive and significantly with the involvement (Salanova, Bréso, & Shaufeli, 2005). Milhano and Pinto (2008), consider that positive self-efficiency is associated with persistency, dedication and satisfaction in performed actions.

Based in the assumption that it is fundamental to understand in which way the self-concept dimensions influence the involvement dimensions, that the present study is developed. It is our intention to clarify relationships that allow the formational

entities to establish the self-concept's improvement or foster strategies that promote the trainees' involvement.

## **2. Method**

The study is presented below, starting with sample subjects, followed procedures and presentation of the instruments applied to assess the engagement and self-concept of the trainees from the Training Course for Petty Officers 1st Class (CFS).

### **2.1 Sample**

This study considered a representative heterogeneous and non-probability sample of the 149 trainees attending the Training Course for Petty Officers 1st Class (CFS) which started in 2011 and 2012. This population consists of young adults, ages ranging from 25 to 38 (average age of 30,87 and standard deviation of 2,98), of both genders (92,6% male and 7,4% female). Joining the Portuguese Navy meant leaving the residence area to 53,7% of the trainees, having 45% maintained the same residence area. 20,8% of the trainees live on-base, in the barracks, since their residence area is located over 120 km, and they may therefore make use of navy facilities. The Training Course for Petty Officers 1st Class is composed of several classes with seventeen specialties (artilleryman, radar operator, torpedo man's mate, machinist's mate, mechanical automobile driver, electrician's mate, ship's serviceman, mess management specialist, marine, gunner's mate, clerk, electromechanical technician, operations specialist, driver and services).

### **2.2 Procedure**

After research approval by the Chief of Staff of the Portuguese Navy the course directors were asked for permission to conduct the survey. Once the survey was authorized, the data were collected outside working hours, immediately after classes or inside the classrooms, according to the availability of the trainers accompanying the process and without prejudice to the training. The students were told that cooperation

was voluntary and anonymity was ensured. Before completing the questionnaires, the survey's objectives were explained and some particularities of the questionnaire clarified.

## 2.3 Instruments

To develop the present study three scales were used: two of them to assess engagement and one to assess self-concept. One of the engagement scales considered was the Utrecht Work Engagement Scale (UWES) (Schaufeli et al., 2002). The results from the UWES psychometric analysis, adapted to the Portuguese military context, verify that this instrument presents factorial validity, with the extraction of two significant dimensions (identified considering the original scale – dedication and vigour (DeVi)): sense of significance, enthusiasm, inspiration, pride and challenge, the latter corresponding to high levels of energy and mental resilience at work, will to invest at work, and persistence in difficult situations; as well as absorption (Abso) – a state of high concentration and time seeming to fly. The other engagement scale considered was the Assessment Scale for Trainee Engagement in the Portuguese Navy (ASTE-PN), (Frade & Veiga, 2014; Frade, 2015). The results from the ASTE-PN psychometric analysis verify that this instrument presents factorial validity, with the extraction of three dimensions: cognitive engagement (ECog) – related to motivational goals and self-regulated learning; affective engagement (EAfe) – related to trainee attitude, interests and values; and behavioural engagement (ECom) – related to trainee conduct and behaviour expressed towards the institution and in performing the training tasks.

The scale used for self-concept assessment was the Assessment Scale for Trainee Self-Concept in the Portuguese Navy – ASTSC-PN (Escala de Avaliação do Autoconceito – Marinha Portuguesa (EAA-MP)) (Frade & Veiga, in press; Frade, 2015). The results from the ASTSC-PN – adapted to the Portuguese military context – psychometric analysis verify that this instrument presents factorial validity, with the extraction of five significant dimensions: interpersonal relationships (RIP) – perception of interpersonal relationships established with comrades and other community elements, as well as the perception of safety and integration regarding their relationship with others; competence (COM) – sense of the individual's trust in one's own professional abilities, as having the necessary skills to perform the tasks assigned, as well as the sense

of ability to solve problems inherent to the performance of the individual's functions; satisfaction (SAT) – self-assessment regarding work and the performed functions, encompassing the affective and emotional components of individual experiences and beliefs; self-acceptance (SAP) – sense of self-knowledge and the skill to acknowledge one's own abilities and difficulties; as well as initiative and risk acceptance (ARI) – the individual's ability to put in effort and face risks.

### 3. Results

Recurring to SPSS multiple regression analysis, with a selection of stepwise variables, was a method used to obtain an economical result that allowed to predict the variance of obtained results in the involvement in function of the self-concept dimensions considered as independent variables.

The following is a presentation of the significant results obtained in the involvement in function of the self-concept dimensions.

#### 3.1 Multiple regression

Table 1 possesses information obtained in the regression analysis of the results, respectively taking the UWES and ASTE-PN dimensions. Independent variables appear indicated according to a decreasing order of importance that assume in the explanation of the involvement results. The respective addition to the following explained percentage may be verified by the determination coefficients achieved (QR: R squared). The significance prove F indicates that the increase observed in the QR value is statistically different from zero ( $p < 0.000$ ), determining that the explained variance percentage increased in a significant way.

The self-concept total dimension occupies the first place of the found hierarchy, coming up as the most important factor to the explanation of the punctuations in the registered involvement dimensions: explains 28% of the variance in dedication and vigour, 27% of the variance in total engagement, 28.6% of the variance in cognitive involvement, 29.5% in affective involvement, and 44.9% in behavioural involvement ( $p < .000$ ).

The values significance levels of F ( $p < .000$ ) show that competence, risks and initiatives acceptance, self-acceptance, satisfaction and interpersonal relationships significantly influence the results in involvement.

**Table 1.** Analysis of multiple regression.

Dep. variable	Order	Indep. variable	R mult.	QR	F	Sig. F
DeVi	1º	ACT	.529	.280	50.091	.000
	2º	COM	.549	.302	27.639	.000
EngTot	1º	ACT	.520	.270	46.968	.000
	2º	ARI	.540	.292	25.999	.000
ECog	1º	ACT	.622	.386	82.453	.000
	2º	ATA	.649	.421	47.301	.000
EAfe	1º	ACT	.543	.295	55.619	.000
	2º	SAT	.566	.321	31.187	.000
ECom	1º	ACT	.670	.449	106.778	.000
	2º	RIP	.692	.479	59.681	.000

#### 4. Discussion

It was verified that total self-concept appears as an important factor in the variance explanation of involvement. These results could lead to think that the self-concept, in a general way, has an influence in all the facets of trainees' involvement. Several authors highlight the existence of a major involvement in students with bigger self-concept (Pinto da Silva & Nogueira, 2008; Veiga, Robu, Appleton, Festas, & Galvão, 2014), being the self-concept associated with well-being (Rohall, Prokopenko, Ender, & Mattheus, 2014).

Starting by considering the obtained results to a level of general dimension of total engagement, having the variance been explained by the total self-concept and the acceptance of risks and initiatives (29.2%), we could think that a bigger capacity of the individual to put in effort and face the risks consequent of his choices will lead to a bigger self-involvement at work. Salanova and colleagues (2005) agree that new challenges imply a self-trust which is reinforced when succeeded, generating a "positive spiral" and resulting in a bigger involvement of the individual with the work he performs. In this logic, the perception the individual has of himself – subjects that

trust their value and capacity, accept challenges and have initiative to get involved in chores, envisioning the success – influences the way he will get involved in the work to develop (Schunk, 1991). It is thought that a high perception of efficiency will allow the subject to believe that he will obtain success (Bandura, 1986, 1997), which will unleash more energy towards the conclusion of the chore i.e. a bigger involvement.

Analysing each of the involvement dimensions, it was verified that the total self-concept and the competence came up as explicative factors of the dedication and vigour varieties (30.2%). These results could lead to think that the more competent the individuals feel, the more energy, persistency, enthusiasm, inspiration and pride they feel in their work. Salanova and colleagues (2005) underline that self-efficiency beliefs, i.e., trust in their own competence towards the completion of a certain chore, are positive and significantly related with the involvement, which is a result of positive beliefs related with efficiency. Milhano and Pinto (2008) also defend that positive self-efficiency associates with persistency, dedication and satisfaction in the developed work. Pinto da Silva and Nogueira (2008) consider that the expectation of being capable of doing a certain chore or accomplishing a mission could potentiate, in the military, vigour, dedication and absorption.

Regarding the cognitive involvement, the results show that its variance could be explained through the total self-concept and the self-acceptance (42.1%). These results could have something to do with the fact that the recognition of their own capacities and difficulties could lead the subjects to self-regulate their learning process in order to achieve certain objectives. Thomas, Bol, Warkentin, Wilson, Strage, & Rohwer (1993) agree that the self-concept is positively related with: the processing of information; the level of mental representation of knowledge acquired; taking initiative of learning processes through internal guidelines; the control of learning resources; the utilization of active strategies of acquisition and recovery of information; the effort, including self-regulatory strategies such as the formulation of goals, planning, self-evaluation and self-regulation; and management of time to accomplish the chores. Similarly, Rosa and Pinto (2011) defend that the subjects who recognise their competences tend to favour the utilization of coping strategies more effective and adjusted, such as problem resolution.

Regarding the affective involvement, the results highlight that its variance could be explained through the total self-concept and satisfaction (32.1%). These results could have something to do with the fact that satisfaction at work, by representing

an emotion state consequent of the evaluation of functions and working experience (Locke, 1976), could be associated with positive feelings about work (Mumtaz, Khan, Aslam, & Ahmad, 2011), could influence the affective involvement of the subject towards work. Siqueira and Padovam (2008) consider the well-being at work as a multidimensional psychological construct integrated by positive affective bonds with a professional performance and the organization, englobing the involvement with the working activity, the affective organization commitment and the satisfaction at work. Danna and Griffin (1999) defend that an individual's satisfaction towards work has an impact in his involvement and well-being, influencing, not only the working activities, but also the social context the subject is inserted in. In a distant way, Villa and Calvete (2001) found evidence of a significant and negative association between satisfaction and the burnout syndrome (as an opposed component of involvement).

Regarding the behavioural involvement, the results show that 47.9% of its variance is explained by the total self-concept and by the interpersonal relationship. These results could come from the fact that the existence of positive interpersonal relationships at work, as well as in school, have as an impact a bigger involvement of the subject with the chores he has to do (Bakker, 2009; Hardy & Bryson, 2009; Harter et al., 2002), a bigger organizational commitment (Chermiss, 1991; Ellingwood, 2001; Jehn & Shah, 1997; Morrisson, 2009; Song & Olshfski, 2008; Zagenczyk et al., 2010) and, consequently better performances (Harter et al., 2002; Wentzel, McNamara Barry, & Caldwell 2004). In this way, the human behaviour has a place in a context of relation with others (Reis et al., 2000), being this the context of relationship helps to predict and understand the behaviour (Bakker, 2009; Reis et al., 2000; Warshawsky et al., 2012). Kelley (1983) agrees that to analyse the human behaviour it is fundamental to consider the influence of interpersonal relationships.

## 5. Conclusion

The results of the present study allowed to determine that the self-concept appears as a source of variance of the involvement, corroborating the idea of relationship between these two constructs (Pinto da Silva & Nogueira, 2008; Rohall et al., 2014; Veiga et al., 2014). The beliefs in self-competence to accomplish a certain chore are positive and significantly related with the involvement (Nogueira & Veiga, 2014; Rosa & Pinto, 2011; Salanova et al., 2005), and should, therefore, be fostered.



It is important to highlight the influence of competence, risks and initiatives acceptance, self-acceptance, satisfaction and interpersonal relationship in the involvement of these trainees. In what concerns the competence, the results show it as a source of variance of dedication and vigour. Therefore, the more competent the individuals feel, the bigger their involvement, i.e. energy, persistency, enthusiasm, identification, inspiration and pride, they feel in their job (Milhano & Pinto, 2008; Schaufeli, Salanova, González-Romá, & Bakker, 2002; Pinto da Silva & Nogueira, 2008). The beliefs in their own competence to accomplish a certain chore are, therefore, positive and significantly related with the involvement.

The acceptance of risks and initiatives implies trust in himself (Salanova et al., 2005; Schunk, 1991) which is thought to correspond to a bigger predisposition for the subject to get involved in the chores. Therefore, subjects that trust in their value and capacity will have more energy to accept challenges and have initiative to do chores, envisioning success (Schunk, 1991).

Regarding the self-acceptance, the results point towards its influence in the involvement, especially to a level of cognitive involvement. The self-acceptance, as a recognition of his own capacities and difficulties could lead the subject to self-regulate his learning process, using strategies of information processing more effective and adjusted, in order to accomplish established objectives (Rosa & Pinto, 2011; Thomas et al., 1993). Therefore, it becomes essential that the trainees understand their capacities and weaknesses, in order to act in the management of positive practices and strategies in the resolution of eventual problems or difficulties, allying this comprehension in the feedback of trainers (Schunk & Swartz, 1993).

In what concerns satisfaction, once this represents a positive emotional state consequent of the evaluation of functions and working experiences (Locke, 1976; Mumtaz et al., 2011), it is thought that it exercises influence in the involvement of the subjects with their chores, namely to a level of affective involvement (Danna & Griffin, 1999; Siqueira & Padovam, 2008), associating negatively to the burnout syndrome (Villa & Calvete, 2001).

The interpersonal relationship contextualizes (Reis et al., 2000) and predicts the human behaviour (Bakker, 2009; Kelley, 1983; Reis et al., 2000; Warshawsky, Heavens, & Knafl, 2012). The existence of positive interpersonal relationships in the environment of performance of the subject have a positive impact in his involvement in the chores to accomplish (Bakker, 2009; Hardy & Bryson, 2009; Harter et al., 2002), in the organization commitment (Chermiss, 1991; Ellingwood, 2001; Jehn &

Shah, 1997; Morrisson, 2009; Song & Olshfski, 2008; Zagenczyk et al., 2010), and in the performance (Wentzel et al., 2004).

These results, which point to an important influence of the self-concept in the involvement. In order to increase the military involvement in training it is essential to act in the development of the self-knowledge of the capacities and difficulties of the trainees and in the consequent promotion of competence perception, encouraging the trust in the subjects' capacities of accepting risks and initiatives. It should also be provided the conditions that allow the professional satisfaction and the development of positive affections, associated with the good interpersonal relationship.

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